



COLORADO SPRINGS,
COLORADO

October 1992



PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.
P.O. BOX 16521
COLORADO SPRINGS, COLORADO 80935



FIRST CLASS MAIL



Ø BEAT



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* Denotes first year of a two year term.

ZERO BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., P.O. Box 16521, Colorado Springs, Colorado 80935. For membership and subscription information see last page of this publication. The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at the Elk's Lodge, 3400 North Nevada Ave. at 7 p.m.

EDITOR: Ron Deutsch NK0P 4305 Ridgeline Drive, Colorado Springs, Colorado 80918 (719) 593-8352.

Deadline for submission of articles or ads is the 21st of each month. Submissions may be sent to the editor or to the club mail box. Permission to reprint articles is granted provided credit is given to both the author and this publication.

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Prez Sez...

ITS ELECTION TIME! Not just for the President of the United States, but read my lips... its even more important; its for a new slate of PPRAA club officers and members of the board of directors. Yes, we will once again cast our votes at the upcoming October meeting for those individuals that will lead our club for another year.

Unlike past elections where a selection committee made its recommendations to the general membership, we are attempting to give everyone the opportunity to assume a leadership role. We are planning to have open nominations from the floor. We have had a number of people who have expressed interest in running for an office or filling a board position and they will be introduced and nominated during the meeting.

I also encourage you to seriously consider running for a position yourself. If not, get someone you know to do it. If you decide to submit a name for the ballot, then please clear it with your candidate first. That way this won't turn into a surprise. "Guess what? ...at the last club meeting you were elected to the position of..."

At this time, many of the board positions and all of the club offices are open including mine as president. Because of increasing travel demands on my time, it is becoming more and more difficult for me to schedule my job around club meetings and I regret the decision that I have to step down.

In order to maintain continuity between an outgoing and an incoming president, your board of directors have drafted and amendment to our bylaws that keeps the immediate past president active on the board for one additional year. At the meeting you will have the opportunity to vote on this change and if passed, I look forward to working with our new president next year.

If you haven't heard, along with the annual elections our program this month will be "Old Timers" night. A lot of people have spent a great deal of time putting together what promises to be a fun and entertaining evening that will feature vintage equipment, photographs, past articles, and stories from several of our members who have been tapping "keys" for 35, 45, and 50 years or more.

I also want to use this column to thank all of you who have given so freely and unselfishly of your time and talents over this past year to keep the club vital and active for both our membership and the community we so often serve. Through your support, you have certainly made my job an easier one. I especially want to thank the officers, board members and committee chairpersons. It has been a pleasure and an honor for me to serve with each of you.

Harv

WB6YXD

Rescue on Uncompahgre Peak

By Bob Witte KBØCY

Something happened on the way to Uncompahgre Peak on August 8, 1992.

Around noon, my brother, my two nephews and I made it to the summit and had just signed the log. I called on 146.52 and contacted Chris, NQ5V who was somewhere to the east of me (Creede, I think). This must be his summer location, since his callbook address is Texas. We talked about the trail up Uncompahgre, since he was interested in hiking it.

After I signed clear with NQ5V and was about to start down the mountain, a teenage boy came up to me and said he had been sent to "find the guy with the radio" because a girl had been hit by a rock down below and was hurt. I am not sure how they knew I had a radio, other than I used it once on the way up the trail. The story seemed rather sketchy and I was skeptical but asked NQ5V to standby on frequency because we may have a medical emergency. At that time, Arnold, W7JRC from Cedaredge, Colo., came on frequency and said he had a phone nearby. (NQ5V did not have a phone available.) A second, older teenager came up the trail with more information. He said he was a pre-med student and had search-and-rescue experience. He had more detailed info which made the story more clear. At this time, I concluded that we had a real emergency and asked W7JRC to call the authorities. I handed my HT to the older teenager and had him describe the victim's condition to W7JRC. W7JRC had some trouble contacting the police, but eventually got through to the Ouray County Sheriff's office. (It turned out we were in Hinsdale County, but we did not know that at the time.)

Jim, NR5Y (also close to Creede, I think) came on frequency and said that he was close to a telephone. I was not always able to communicate with NR5Y so NQ5V

relayed to NR5Y. Since W7JRC was having trouble with getting the telephone call through, I asked NR5Y to also try to place a call. He called the Mineral County sheriff, who relayed to Hinsdale county. All this time, I was moving down the mountain to try to get closer to the victim without losing radio contact. About this time, my HT battery went dead, so I switched to my spare. (Good thing I had one!) As I moved onto the saddle below Uncompahgre, I lost contact with W7JRC and contact with NQ5V got much worse, but usable. About this time, Doug, NØLAY came on the air and his signal was very strong at my location which allowed me to stay on low power and conserve my HT batteries. NØLAY apparently came on the air in response to a call from the Hinsdale County Sheriff. NØLAY also had a radio which was on the sheriff's frequency and relayed information from me to the sheriff's dispatch.

I had not proceeded down any further because I was certain that I would lose radio contact with NØLAY. The victim had several people with her that had First Aid training and was about 1000 feet below me at the bottom of a cirque. I sent the older teenager back down to the victim with instructions to signal me as to her condition. We both had signal whistles — two whistles meant her condition was the same (stable), three whistles meant her condition had deteriorated. After I got the two whistles back, I felt like things were going to be OK.

About that time, NØLAY relayed that an ambulance had been dispatched to the trailhead and a search & rescue person was on the way up the trail with a trail bike. Also, a helicopter had been dispatched from Montrose. It took us a little while to communicate to the sheriff where the victim was, but we had a pretty good topo map, so we eventually gave them an accurate fix on

(continued on Page 4)

Rescue on Uncompahgre Peak

(continued from Page 3)

the location. As I was listening to NOLAY relay, I realized that my Kenwood TH-77A could receive most police frequencies. NOLAY provided me with the frequency and I programmed it into the HT, scanning between 146.52 and the sheriff's frequency. This allowed us to listen in on what was going on. In fact, many times I was clearly hearing the various parties while they were having trouble communicating.

The S&R guy on the trail bike made it to the accident scene without us noticing him. He had parked his bike about half a mile away from us and had scrambled down to the victim. The first time I was aware of his position was when he transmitted from the accident site. He confirmed that the girl was pretty banged up, but stable, and needed a helicopter ride out. About this time, the sheriff's dispatch reported that the helicopter was about 5 minutes out (I think it turned out to be more like 15 minutes away). Soon the helicopter came up on the sheriff's frequency and I could hear the S&R guy coordinating with the helicopter pilot. The two-seater helicopter landed and they put the girl in the second seat. Apparently she was stable enough to walk to the helicopter with some assistance. The alternative was to put her outside the chopper in a litter. The helicopter lifted off and set back down a few minutes later near the ambulance which was near the trailhead. The two-seater chopper was not a medical evacuation helicopter and the plan was that Flight-for-Life from Grand Junction would pick up the victim at the ambulance location. It turned out that Flight-for-Life was unavailable so they took the victim to a hospital by ambulance (to a local clinic, then Gunnison, I think).

We stayed on the ridge until the chopper headed for home, then we did the same. On the way down, the S&R guy on the trail bike caught up with us and we talked about the accident. He said the girl lost some teeth,

had facial cuts, internal bleeding and swelling in the face, but was in stable condition. He said that without the radio report that they would be just getting the initial call at the time he was heading home. That is, we saved about 5 hours on the response time with amateur radio.

I have carried my HT on every 14er hike I have ever done and had considered the possibility of using it for emergency communications. I guess I never gave it too much thought because people venturing into the back country need to have a self-sufficient attitude. That means being prepared and preventing or handling any emergency situation on your own. But the unexpected happens, and here I was in the middle of a medical emergency. It certainly has caused me to take this emergency communications thing more seriously.

Things learned that day:

- Always carry an extra HT battery (or two)
- Always carry a decent portable antenna (more than a rubber duck)
- Always carry a good topo map, even if you don't need it to follow the trail
- Make note of what county you are hiking in when in unfamiliar parts of the state. This aids in getting to the right Sheriff's office. (This is important because the person you contact via radio is likely to be two or three counties away.)
- My signal whistle (which has caused considerable abuse from a few hiking companions) is actually useful
- Extended coverage receive is very useful in emergencies. (I am still thinking about extended transmit — I clearly could have used it in this case)

I was very pleased that everyone reacted quickly but in a professional manner. The radio amateurs all helped out when they could but stayed out of the way when appropriate. I am sure we can find some things that could have been done better, but I felt like things went well overall.

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From Radio Waves to Dr. Einstein

(Part II)

By Susan K. Smith, KA7NNX

Part I explored the discovery of Maxwell's equations, which mathematically described all known electric and magnetic interactions. Maxwell's predictions led to the concept of a wide electromagnetic spectrum, as shown in Figure 1, frequencies spanning far below to far above those of light. This concept was proven shortly after Maxwell's death in 1879. In 1888, German physicist Heinrich Rudolf Hertz discovered electromagnetic radiation of low frequency, which are now called radio waves. (The frequency unit, 1 cycle per second, is called 1 hertz, named after him.) At the other end of the spectrum, electromagnetic radiation of very high frequency, now called X-rays, was discovered by another German physicist, Wilhelm Konrad Roentgen in 1895.

The world view of the late 19th century was entrenched with Newton's concepts of absolute time and space. Classical mechanics gave rise to "Newtonian relativity," which described mechanical laws from different inertial frames. (An inertial frame is a frame of reference moving at a constant velocity with respect to the "fixed stars.") For a thumb nail sketch of Newtonian relativity, see Figure 2. Let's say Mrs. Smith is standing still at a train station (one valid inertial frame) and little Susie is riding in a glass covered boxcar traveling due north at 40 miles per hour (another valid inertial frame.) Newtonian relativity says both Mrs. Smith's and little Susie's watches tick at the same rates (assuming perfect watches!). Likewise, if both have a yardstick in their hands, both yardsticks have the same length no matter how they orient them. If little Susie walks 2 miles per hour due north in her boxcar, Mrs. Smith sees little Susie whizzing by at 42 miles per hour — 40 miles per hour for the boxcar +

2 miles per hour for little Susie's walking. If Mrs. Smith drops her wallet, she observes it dropping straight to the ground. Likewise, if little Susie drops a ball, she observes it dropping straight to the floor. Simply put, Newtonian relativity says that it is **impossible** to detect the absolute motion of any inertial frame, such as Mrs. Smith at the train station or little Susie in the boxcar, by merely observing the laws of mechanics in them.

Maxwell's equations, as we saw in Part I, predicted that all electromagnetic radiation propagated at the speed of light — 300,000,000 meters per second or 186,000 miles per second. (Here, we will denote the speed of light as "c," a common convention.) What was puzzling was that waves would be seen traveling at *c* no matter how fast or slow either the source or the observer of the radiation was moving. This totally contradicted Newtonian relativity. It was also observed that the laws of electricity and magnetism seemed to change when viewed from different inertial frames. An observer at rest with respect to a charge measures only an electric field. When the observer moves relative to the charged particle (or the charged particle moves with respect to the observer), a magnetic field is seen in addition to the electric field. Newtonian relativity is clearly violated in this case. Yet, Maxwell's equations predicted that a changing electric field (as produced by a moving charge) will always produce a magnetic field.

Another puzzle that concerned 19th century physicists was how electromagnetic radiation could even move in a vacuum (as in outer space) without a medium for them to move through. (Clearly, radiation was propagated or we would neither see sunlight, moonlight, nor starlight.) So they postulated the existence of a medium which they dubbed the "ether." It allegedly permeated all of space. Scientists thought they should be able to measure different

velocities of light as the earth moved through this ether. Some of the extreme differences are shown in Figures 3 (a) - (b).

In Figure 3 (a), the velocity of light c moving with the velocity of the ether wind v should be measured as a net velocity, $c + v$. In Figure 3 (b), light moving into the ether wind should be measured as a slower velocity, $c - v$.

American physicist Albert A. Michelson and American chemist Edward W. Morley devised the "Michelson-Morley experiment", which used an apparatus they were confident that would detect this ether wind. By simply rotating the apparatus, they could measure the differences between all extremes as shown in Figures 3 (a) - (b) and everything in between. In 1887, they discovered no velocity differences in the speed of light, no matter how they oriented their equipment. Hence there was no ether wind that could be measured. Since then, this experiment has been repeated many times with more sophisticated equipment. Still, the result was no change, no ether wind.

Clearly, there was a big disconnect between the laws of classical mechanics and the laws of electromagnetic radiation as described by Maxwell. The null result of the Michelson-Morley experiment again agreed with Maxwell's predictions - that electromagnetic radiation propagated at the speed of light regardless of the velocity of the source or observer.

Among those who pondered the puzzling result of the Michelson-Morley experiment was a young patent office examiner in Berne, Switzerland. His name was Albert Einstein. Next month, you will know the rest of the story.

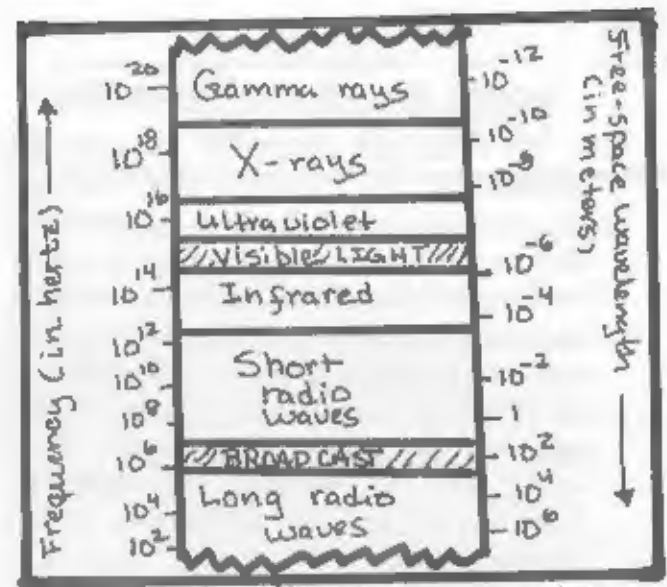


FIGURE 1: The Electromagnetic Spectrum (not drawn to scale)

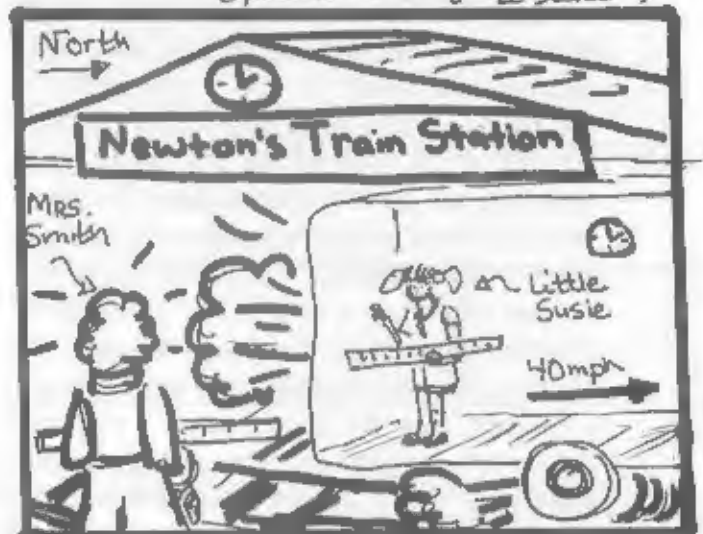


FIGURE 2: 2 Valid Inertial Frames

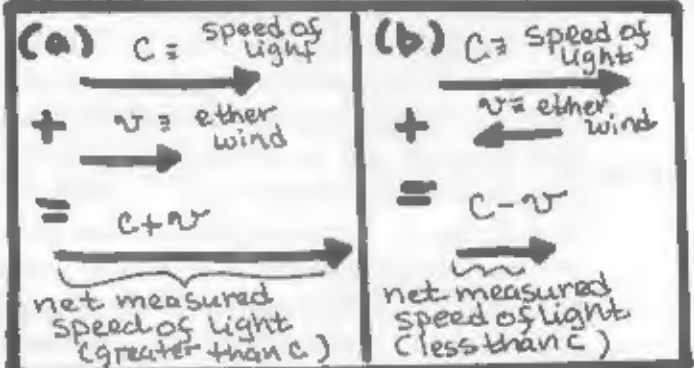


FIGURE 3: (a) light traveling with the "ether wind" (b) light traveling against the "ether wind"

Committee Chairpersons

Publicity	Al Craig	594-9288
Membership	Les Borst	634-3995
Education	Al Bailey	597-8514
VE Testing	Chris Smith	495-0624
Interference	Bill Petty	591-2116
RACES	Doug Moloney	(unlisted)
ARES	John Chapman	635-1604
SKYWARN	Steve Westby	570-1070
Public Service	Mike Stansberry	636-1290
CCARC	Oak Stockton	570-7782
Club Trailer	Steve Westby	570-1070
Newsletter	Ron Deutsch	593-8352
Club Historian	Al Craig	594-9288

October Meeting Old-Timers Night

As I thought about this program the question that kept coming to mind was, just who is "an old-timer? We have club members who have been hams for 25 years or longer and are still "young" (at least from where I'm looking). Then, on the other hand, we have at least two members who got their tickets in the 1930's and no one would question the fact that they are genuine "old-timers". So I would like to propose the following distinction, at least for the purpose of the October meeting.

An "old-timer" is anyone who got their first license 25 years ago or longer. Just think, on the basis of that definition both Emily Baxter, NØOPR and Stephanie Cox, KBØEZG will be "old-timers" by their 35th birthdays and they probably won't take kindly to being referred to as "one of the old-timers". But shouldn't we have a special term for those who have been in ham radio 40 or 50 years or longer. "Over-the-hill" came to mind but anyone who knows either Oak Stockton or Charlie Eining know that these two men are anything but over-the-hill. After more thought I decided that the term "senior" was still respectable so anyone who got their first license 40 years ago or longer should be called a "senior old-timer". Our Old-Timer program will consist of four activities. 1. A very brief history of ham radio in Colorado Springs will be given covering the last 60 plus years. 2. Various printed materials from the club archives will be displayed (the oldest piece comes from 70 years ago). 3. There will be a display of vintage equipment. Any piece of electronic equipment more than 30 years old is welcome. We expect to have some equipment predating WWII. 4. We have asked some senior old-timers and old-timers to give us brief reports on how ham life was prior to transistors and microprocessors. They will also answer questions from the floor.

Everyone should attend this meeting to participate in voting for club officers and board members. And once you have done

your duty you can enjoy an interesting program. New hams and aspiring hams will learn something about the history of ham radio in the Springs and old-timers can have a wonderful time reminiscing.

NOTE: We want to display as much old ham radio and electronic equipment as possible. Please bring anything that you have on Wednesday, October 14. If you know anyone you is an old-timer, or especially a senior old-timer, please invite them to come to the meeting. Please offer to bring them if that will help get them there and encourage them to bring any old equipment that they may have. And if transportation is a problem please call Al Craig, N2IWZ at 594-9288.

Submitted by Al Craig, N2IWZ

Dits and Bits

Notice

Hams and others will be meeting for lunch at 11:30 AM on Thursday October 15th at the Golden Palace, 1181 N. Circle (Pioneer Mall) in Colorado Springs. They serve an all you can eat meal for \$4.95. If you have questions call Connie KAØPXE at 634-1081 or Rosie WAØMNL at 471-9965.

Free

Miscellaneous radio equipment (including "MOTRAC" radios in various states of repair). See Al Vrooman NØCMW, 473-1660.

ELECTIONS

Elections will be held at the next Club meeting. Any club member may be nominated for election provided they agree to run.

The meeting is at 7:00PM on Oct. 14 at the Elk's Lodge, 3400 N. Nevada.

General Meeting

September 9, 1992

Meeting started by Vice President Luci NØQUD at 1900 by each member and guest introducing themselves. Minutes approved as printed in ØBEAT with one correction - "next board meeting is September 20, not August."

Treasurer's report:

Previous	\$1140.26
Income:	\$435.00
Expenses:	\$532.41
Balance:	\$1042.41

Committee Reports:

Publicity

Al N2IWZ reported that on Oct. 31 there will be a presentation at East library.

Education

Al ADØZ reported that on Sept. 14 at 7 PM Novice classes start at the TJ Maxx Center at Rustic Hills Mall.

V.E. Testing

Chris NXØE said that the next testing is Sept. 13 at Chapman College.

Interference

Bill NØIJX - nil.

ARES

Mike KØTER reported that Nov. 7th or 14th is planned for the next simulated emergency test.

Public service

Mike KØTER said that the Ride With Stars on Sept. 19 is covered. The next event, early Oct., is covered too.

RACES

Doug WBØMHP - Nil.

Skywarn & Trailer

Steve WB7VHR - Nil.

CCARC

Oak KØROL said the next meeting, in Denver, has no firm date set yet.

Ø Beat

Chris NXØE reported the need for assistant editors - contact Ron NKØP if you're interested.

OLD BUSINESS

A volunteer is needed for the Christmas Party. (Note- Susan KA7NNX volunteered.) Also needed is a volunteer to head up the swapfest (Note - N4TGO Doug volunteered.) HAMMY was awarded to Al NØCMW for outstanding work for the club.

NEW BUSINESS

Rosie WAØMNL reported that the Principal of West Jr. High wants someone to speak to

students about ham radio. Doug N4TGO gave a report on the last transmitter-hunt.

The prize winners were KA7NNX, NØNJX, NØLA, KAØPXE, NØQJX, KFØCT, KBØKID.

Wayne K9SIM gave John NØQJS a letter of appreciation for the help in setting up the link south for the 147.345 repeater.

Submitted by Al NØCMW Sec. PPRAA.

Board Meeting Minutes

September 27, 1992

Present at the meeting: Harv WB6YXD, Ron NKØP, Liz NØTUK, Sharon NØNRA, Matt KC4KGS, Al NØCMW, Al N2IWZ, Rosie WAØMNL, Russ KBØFNM, Ken NØNKP, Susan KA7NNX and Chris NXØE.

The meeting convened at 3:15 PM. Susan received a grant of \$100 from the board to pay for the Christmas Party supplies, exclusive of the fee for the entertainment. Harv will contact the Elk's Club about the party. Rosie, Faye, Connie and Al Craig are also helping with the party.

Russ mentioned that the trailer still needs a spare tire and a jack. The items have still not been purchased with the money previously approved.

Rosie reported that the balance of the raffle money has been spent (as required by the State) on supplies for the classes, a gift of ham radio books to the library, and a donation to the Elks.

Ron moved that club safety equipment (climbing belts) be turned over to the Field Day chairman for use for Club functions only. This was prompted by concerns for Club liability. The motion passed.

Al Craig brought up the idea of buying a wireless mike set for Club use with a PA. Al will check into the particulars of the PA system being donated to the club prior to further consideration.

Al Vrooman mentioned that some radio parts had been donated to the club. They are at Al's house and are free to any club member.

The Board reviewed a list of candidates for election who have agreed to run for election. Floor nominations will be accepted for members who agree to run.

The Board has proposed an amendment to the club's bylaws. It is proposed to add a new sentence to the end of section 2: "The past President shall be a Board member for one year following the expiration of their term."

Submitted by Chris NXØE

FOX Hunting

EL Paso County Amateur Radio Direction Finding Group

Well another great and frustrating Fox Hunt was completed on Saturday September the 19th. Thanks to Sharon NØOPM for volunteering to hide the stationary mobile Fox in the parking garage (top level) at Memorial Hospital. The Fox was located approximately 8 miles from the starting point at Rampart High School near Union and Lexington Avenues. Sharon was running a Kenwood mobile with approximately 5 watts of output power on an omni antenna. The signal was transmitted upon request for a specific amount of time for each hunter involved in the search.

William NØNJX and Greg WA2OOD were the first to find the Fox after driving for 48 minutes and 15.1 miles. They both teamed up in one vehicle and utilized a Doppler tracking device to hunt the Fox down. Since this was my first ever hunt, I utilized a 3 element MFJ beam to keep myself and my XYL Mona NØOPH confused in the foothills near Garden of the Gods Road. After spending lots of useless time negotiating with Mona NØOPH on which way to go, we started accepting help from the Fox location on getting us on the right track. NØNJX, WA2OOD and Paul WØRW used their direction finding capabilities and started tracking us along with Malcolm KE9S who was also slightly disoriented! They provided tips on basic directions to the hidden transmitter location. Eventually, after driving 32.8 miles for 2 hours, we found the FOX. Malcolm KE9S and his 4 element beam arrived at the same time and location and drove a total of 33.8 miles.

Also at the hidden Fox location, the Memorial Hospital security force stopped by for a visit. They were interested in our activities and were briefed by Sharon NØOPM, who must have did a good job since nobody went to the slammer! One of the security guards was interested in the next scheduled Amateur Radio class, so score one future Ham for the Fox Hunt.

The next hunt is scheduled for October 17th, starting around 10 AM at the East Pike's Peak Library (North Union) in Colorado Springs on 147.45 simplex. Malcolm KE9S has volunteered to hide the FOX, so come out and help us hunt it down.

TNX, 73 & CUL - Doug N4TGO

PPRAA Picnic

About 130 people attended the PPRAA Club picnic, August 16th. We consumed 135 Hamburgers and 82 hot dogs, over 100 cups of coffee along with 4-1/2 gallons of orange drink.

The mini - swapfest was a success and I want to say a heart felt THANK YOU to every one that helped (especially Al N2IWZ and Russ KBØFNM). We had some mighty good cooks, one all the way from California where she manages a catering service.

A lot of delicious food was brought by PPRAA folks and then they helped where ever needed, making this an enjoyable day.

We thank the Academy Radio Club for the \$120 donation toward our picnic expenses.

Pikes Peak Library District and the PPRAA to Present Ham Radio Exhibit

On Saturday, October 31 from 10 AM through 4 PM the PPRAA will be presenting a display and demonstration of amateur radio in action at the East Branch of the Pikes Peak Library. The theme of this display and demonstration will be: Amateur Radio is Public Service, Educational, and Fun.

Our goal is to include every aspect of ham radio and as such we will have exhibits from ARES, RACES, El Paso Search and Rescue, (Carl Sperry, KA0JEA, coordinator), Edge of Space Sciences (Malcolm Benton, KE9S, coordinator), the Pikes Peak Radio Amateur Association, REACT (Walt Green, N0PSB, coordinator), ATV, Kenwood Kids (Larry Krol, N0AMP, coordinator), YLISSB (Faye Harren, KB0QI, coordinator), Packet Radio, OSCAR, etc. There is no charge of any kind to participating organizations however they must be ham radio related.

An explanation is in order concerning the date for this activity. Steve Westby, WB7VHR and I have been talking about this sort of presentation since last spring. I made my initial suggestion to the library in May but it wasn't until August that we had a response and by the time we got down to details October 31 was the earliest Saturday available. I have already asked the library to schedule us for the middle of September next year.

For any of you who are unfamiliar with the East Library (also known as ELIC) it is located on Union Boulevard between Vickers and Montibello. It is the most heavily used facility in the Pikes Peak Library District having been visited by over 618,000 persons in 1991. The library will make a part of its parking lot (south front) available to us for the club trailer and other vehicles containing operating ham gear. In addition we will have the use of its large public meeting room. This room measures approximately 40 ft. by 40 ft. and includes a small stage. Ceiling height is 12 feet and there is a door (not for use by the general public) which gives easy access to the part of the parking lot where our trailer, etc. will be parked. The library will provide tables and chairs as required.

The meeting room is powered by five separate 115 volt circuits. Four of these are

rated at 20 amps and one at 30 amps. In addition we will have the use of a small 12 ft. by 15 ft. video room where longer, more general videos on ham radio can be shown. Any of our exhibitors are welcome, in fact encouraged, to include video displays as part of their presentations. Certainly we hope that this will be part of SKYWARN, Edge of Space Sciences and El Paso Search and Rescue as a minimum.

In addition the conference room contains a small kitchenette and the library will make available coffee, tea and hot chocolate and a limited number of cookies. I say "limited" because the library has an average of 1800 to 2000 visitors on a Saturday and if all 2000 come to visit us we (PPRAA) may have to provide additional cookies. The PPRAA will provide orange drink courtesy of McDonald's.

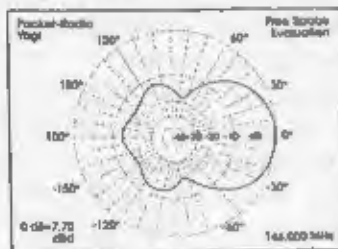
We will be using NK0P's Tesla Coil as an attention getter in the front lobby (Ron & I tried it out there the other night and happily it does not drive the computer reference system bonkers). Fortunately all visitors must enter and leave through this lobby so we should be able to urge everybody who passes to visit our display. Of course we must have at least one person in attendance at the Tesla Coil at all times.

Because this is essentially an all day affair we will need at least 40 volunteers to cover all of the activities with which the PPRAA will be directly involved. These include but are not limited to: ARES, RACES, ATV, Packet Radio, OSCAR, Kenwood Kids, YLISSB, the Message Center, the Tesla Coil, helping with refreshments and last but not least just interacting with the visitors and explaining the various exhibits. A number of members have already volunteered. The very first was Stephanie Cox, KB0EZG, thanks again, Stephanie. Others have come forward to offer help, Steve Schaarschmidt, K0CI and Dennis Ochs, N7OGL to name just two. I'm reluctant to try to name everyone for fear of missing someone. But thank you all. We're going to put on a great show.

Finally, let me just add that the library is very enthusiastic about our presentation and will provide us with all the assistance that they can. We are really fortunate to have such good people to work with and such a fine facility in which to present a show about ham radio.

Submitted by Al Craig N2IWZ

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